

(3) One table of present value factors for FERS annuities that receives cost-of-living adjustments before the retiree attains age 62.

(b)(1) Each present value factor will equal the amount of money (earning interest at an assumed rate) required at the date of computation to fund an annuity that starts out at the rate of \$1 a month and is payable in monthly installments for the annuitant's lifetime based on mortality rates for annuitants paid from the Fund; and increases each year, assuming a certain rate of inflation.

(2) Interest, mortality, and inflation rates used in computing the present value are those used by the Board of Actuaries of the Civil Service Retirement System for valuation of CSRS and FERS, based on dynamic assumptions.

(3) The present value factors are unisex factors obtained by averaging distinct present value factors, which take into account mortality for retirees and survivors under CSRS and FERS.

(c)(1) When OPM publishes in the FEDERAL REGISTER notice of normal cost percentages under § 841.407 of this chapter, it will also publish the CSRS and FERS tables of present value factors for use for this part.

(2) The present value factors will be based on the assumptions used to compute the normal cost percentages.

(3) Changes in the tables of present value factors will be effective on the first day of the month in which the changes in the normal cost percentages become effective.

**§ 847.603 Date of present value and deficiency determinations.**

(a) For determining the deficiency under § 847.604, OPM will determine, under §§ 847.605 through 847.607, the present values of future retirement benefits (with and without credit for the NAFI service) as of the first date on which inclusion of credit for the NAFI service will affect the rate of annuity payable.

(b) Appendix A to this subpart contains a table in which the left column is a list of events for which inclusion of credit for the NAFI service will affect the rate of annuity payable and the right column indicates the date on

which the deficiency will be determined.

**§ 847.604 Methodology for determining deficiency.**

(a) When an event listed in the left column of the table in Appendix A to this subpart occurs, OPM will compute the deficiency, as follows:

(1) As of the date of computation under § 847.603, OPM will determine—

(i) The present value of the annuity including credit for the NAFI service under § 847.605;

(ii) The present value of the annuity without credit for the NAFI service under § 847.606 or § 847.607, as applicable; and

(iii) The amount credited to the employee from a transfer to the Fund under subpart E of this part including earnings under § 847.507.

(2) OPM will add the amount determined under paragraphs (a)(1)(ii) and (iii) of this section and subtract that sum from the amount determined under paragraph (a)(1)(i) of this section.

(b) If the amount determined under paragraph (a)(2) of this section is greater than zero, the deficiency is equal to that amount.

(c) If no event listed in the left column of the table in Appendix A to this subpart occurs—that is, the additional service credit does not cause an increase in an employee annuity or a survivor annuity actually paid—or, if the amount determined under paragraph (a)(2) of this section is less than or equal to zero, the deficiency equals zero.

**§ 847.605 Methodology for determining the present value of annuity with service credit.**

(a) OPM will determine the present value of the annuity including service credit for NAFI service under paragraph (b) or (c) of this section.

(b) In cases in which the annuity is payable to a retiree, the present value under paragraph (a) of this section equals the monthly annuity rate including credit for the NAFI service as of the date of computation under § 847.603 times the present value factor for the retiree's age on that date.

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(c) In cases in which the annuity is payable to a survivor, the present value under paragraph (a) of this section equals the monthly annuity rate including credit for the NAFI service as of the date of computation under § 847.603 times the present value factor for the survivor's age on that date.

### § 847.606 Methodology for determining the present value of annuity without service credit—credit not needed for title.

(a) If credit for the NAFI service is not necessary to provide title to an annuity payable on the date of computation under § 847.603, OPM will determine the present value of the annuity without credit for the NAFI service under paragraph (b) or (c) of this section.

(b) In cases in which the annuity is payable to a retiree, the present value under paragraph (a) of this section equals the monthly annuity rate without credit for the NAFI service as of the date of computation under § 847.603 times the present value factor for the retiree's age on that date.

(c) In cases in which the annuity is payable to a survivor, the present value under paragraph (a) of this section equals the monthly annuity rate including credit for the NAFI service as of the date of computation under § 847.603 times the present value factor for the survivor's age on that date.

### § 847.607 Methodology for determining the present value of annuity without service credit—credit needed for title.

(a) If credit for the NAFI service is necessary to provide title to an annuity payable on the date of computation under § 847.603, OPM will determine the present value of the annuity without credit for the NAFI service under paragraph (b) or (c) of this section.

(b)(1) In cases in which the annuity is payable to a retiree, the present value under paragraph (a) of this section equals the present value of the deferred annuity without credit for the NAFI service as of the deferred annuity date discounted for interest to that date determined under § 847.603.

(2) The present value of the deferred annuity without credit for the NAFI service as of the deferred annuity date

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equals the retiree's monthly annuity rate without credit for the NAFI service as of the deferred annuity date times the present value factor for the retiree's age on that date.

(3) The present value under paragraph (b)(2) of this section is discounted for interest by dividing that amount by a factor equal to the value of exponential function in which—

(i) The base is one plus the assumed interest rate under § 841.405 of this chapter on the date determined under § 847.603, and

(ii) The exponent is one-twelfth of the number of months between the date determined under § 847.603 and the deferred annuity date.

(c) In cases in which the annuity is payable to a survivor, the present value under paragraph (a) of this section equals zero, that is, no survivor annuity would ever become payable without credit for the NAFI service.

### § 847.608 Reduction in annuity due to deficiency.

Any annuity payable in the case of an employee who has made an election under subpart D of this part will include credit for the NAFI service. The monthly annuity rate on the date determined under § 847.603 will be permanently reduced by an amount equal to the amount of any deficiency divided by the present value factor for the annuitant's age on that date.

#### APPENDIX A TO SUBPART F OF PART 847—LIST OF EVENTS FOR WHICH INCLUSION OF NAFI SERVICE MAY AFFECT THE RATE OF ANNUITY PAYABLE

Type of event	Date deficiency will be determined
CSRS or FERS nondisability retirement.	Commencing date of annuity.
CSRS disability retirement ....	Commencing date of annuity. <sup>1</sup>
FERS disability retirement .....	First day of month following 62nd birthday. <sup>2</sup>
CSRS death in service .....	Commencing date of survivor annuity. <sup>3</sup>
FERS death in service .....	Commencing date of survivor annuity.
FERS death of disability annuitant prior to age 62.	Commencing date of survivor annuity.
FERS death of separated employee.	Commencing date of survivor annuity.